Amendment to the Specification

Please replace 5th and 6th line of text on page 1 with the following amended text:

~~NUCLEIC ACID ENCODING~~ A ~~NOVEL~~ PROSTAGLANDIN RECEPTOR PROTEIN AND METHODS OF USE THEREOF

Please replace lines 1 - 2 on page 1 with the following amended paragraph:

~~NUCLEIC ACID ENCODING~~ A ~~NOVEL DP~~ PROSTAGLANDIN RECEPTOR PROTEIN AND METHODS OF USE THEREOF

Please replace lines 25 - 30 on page 5 with the following amended paragraph:

Figure 3 shows an alignment of the coding sequences of the DP receptor between multiple species. Shaded residues match the guinea pig residues exactly. Hs = human (SEQ ID NO: 12); Rn = rat (SEQ ID NO: 13); Mm = mouse (SEQ ID NO: 14); and Cp = guinea pig (SEQ ID NO: 1).

Figure 4 shows an alignment of the amino acid sequences of the DP receptor between multiple species. Shaded residues match the guinea pig residues exactly. Hs = human (SEQ ID NO: 15); Rn = rat (SEQ ID NO: 16); Mm = mouse (SEQ ID NO: 17); Cp = guinea pig (SEQ ID NO: 2); Majority (SEQ ID NO: 18).

Please replace lines 5 - 12 on page 6 with the following amended paragraphs:

Figure 6 shows an example of PGD2-induced calcium mobilization of recombinant guinea pig DP receptor (SEQ ID NO: 2) expressed in ~~stably transfected~~ HEK-293-Gα16 cells stably transfected with SEQ ID NO: 1 compared to an equivalent cell line generated with the mouse DP receptor and the parental cell line.

Figure 7 shows an example PGD2 dose response curve of recombinant guinea pig DP receptor (SEQ ID NO: 2) expressed in ~~stably tranfected~~ HEK-293-Ga16 cells stably transfected with SEQ ID NO: 1 using the SPA cAMP assay. Comparison to an equivalent cell line generated with the mouse DP receptor and the parental cell line are included.

Please replace lines 8 - 29 on page 12 with the following amended paragraph:

The nucleic acid molecule of the invention can comprise a portion of SEQ ID NO:1. The nucleic acid fragment can be used as a probe or primer or the fragment can encode a protein fragment that may or may not be a biologically active portion of the receptor such as the ligand binding domain. For instance, the arginine in the seventh transmembrane domain was proposed to be the binding site for the carboxyl group of the prostanoid molecule (Narumiya et al., 1993) and Lys-75 and Leu-83 of the second transmembrane domain in the mouse confers ligand binding specificity (Kobayashi et al., 2000). These two sequence stretches have previously been reported to be characteristically conserved amongst GPCRs of the prostanoid family (Hirata et al., 1994) and are also present in the guinea pig DP protein: QYCPGTWCR (SEQ ID NO: 10) in the second extracellular loop and RFLSVISIVDPWIFI (SEQ ID NO: 11) in the seventh transmembrane domain were identical among all DP orthologues. The nucleotide sequence of SEQ ID NO:1 allows for the generation of probes and primers for the use of identifying and/or cloning the receptor of the invention or homologues in cells, tissues and organs. The oligonucleotide typically comprises a region of nucleotide sequence that hybridizes under stringent conditions to at least 10, preferably about 12, more preferably 25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350 or 400 consecutive nucleotides of the sense or antisense sequence of SEQ ID NO:1 or of a naturally occurring or man-made mutation of SEQ ID NO:1. The probe may comprise a label group attached thereto, e.g., a radioisotope, a fluorescent compound, an enzyme or an enzyme co-factor. The probe can be part of a kit for identifying cells or tissues encoding the nucleic acid, detecting mRNA levels or determining whether a genomic gene has been mutated or deleted.

Please replace lines 1 - 9 on page 25 with the following amended paragraph:

QYCPGTWCR (SEQ ID NO: 10) in the second extracellular loop and RFLSVISIVDPWIFI (SEQ ID NO: 11) in the seventh transmembrane domain. A biologically active portion of the protein of the invention can be a polypeptide that is, for example, 10, 25, 50, 100 or more amino acids in length. Particular biologically active polypeptides include one or more identified structural domains of the protein of the present invention. Moreover, other

biologically active portions, in which other regions of the protein are deleted, can be prepared by recombinant techniques and evaluated for one or more of the functional activities of the protein of the invention. Further guidance directed to biologically relevant portion of the invention are provided below in "Example 3".

Please replace lines 23 - 30 on page 79 with the following amended paragraph:

Hydropathy analysis confirmed the presence of seven putative transmembrane domains which mapped identically to conserved areas that had previously been defined in the sequences of mouse, rat and human DP. Sequence conservation was the highest in the transmembrane domains between the DP orthologues. Two sequence stretches that had previously been reported to be characteristically conserved amongst GPCRs of the prostanoid family (Hirata et al., 1994) were also present in the guinea pig DP protein: QYCPGTWCR (SEQ ID NO: 10) in the second extracellular loop and RFLSVISIVDPWIFI (SEQ ID NO: 11) in the seventh transmembrane domain were identical among all DP orthologues.